

This PDF is a selection from an out-of-print volume from the National Bureau of Economic Research

Volume Title: Business and Professional Income Under the Personal Income Tax

Volume Author/Editor: C. Harry Kahn

Volume Publisher: Princeton University Press

Volume ISBN: 0-691-04107-5

Volume URL: <http://www.nber.org/books/kahn64-1>

Publication Date: 1964

Chapter Title: Sources and Coverage of Business and Professional Income on Tax Returns

Chapter Author: C. Harry Kahn

Chapter URL: <http://www.nber.org/chapters/c0761>

Chapter pages in book: (p. 15 - 50)

## CHAPTER 2

# Sources and Coverage of Business and Professional Income on Tax Returns

### *Sources of Sole Proprietor and Partnership Income*

OF \$316 BILLION of adjusted gross income reported by individuals on tax returns for 1960, \$30 billion, or close to one-tenth, was from independent business or profession (Table 1). Adjusted gross income from business or profession is obtained by reducing aggregate reported net profits by aggregate reported net losses. Of the \$30 billion reported, 70 per cent came from sole proprietors, the rest from partnerships. Next to wages and salaries, which accounted for over four-fifths of AGI reported, they were the second and third largest components.

TABLE 1

ADJUSTED GROSS INCOME AND ITS COMPONENTS AS REPORTED ON TAX RETURNS, 1960

	Amounts (billion dollars)	Per Cent of Total
1. Wages and salaries	258.6	81.7
2. Proprietors' net income	30.0	9.5
Sole proprietorship	21.1	
Partnership	9.0	
3. Property income	25.8	8.2
Dividends	9.9	
Interest	5.1	
Net statutory capital gains	5.3	
Rents and royalties (net)	3.3	
Estates and trusts	0.6	
Pensions and annuities	1.6	
Sales of property other than capital assets	-0.1	
4. Other	2.1	0.7
5. Adjusted gross income	316.5	100.0

Source: Treasury Department, Statistics of Income, 1960.

TABLE 2

INDUSTRIAL DISTRIBUTION OF AGI FROM UNINCORPORATED BUSINESS AND  
PROFESSIONS REPORTED ON TAX RETURNS, 1960  
(dollars in millions)

Industrial Group	Sole Proprietorship			Partnership			Sole Proprietorship and Partnership		
	Net Profit Less Net Loss (1)	Per Cent of Total (2)		Net Profit Less Net Loss <sup>a</sup> (3)	Per Cent of Total (4)		Net Profit Less Net Loss (5)	Per Cent of Total (6)	
Agriculture, forestry, and fisheries	2,998	14.2		592	6.3		3,590	11.8	
Farms	2,737	13.0		512	5.5		3,590	10.7	
Mining and quarrying	-103	-5		-25	-3		-128	-4	
Construction	1,898	9.0		730	7.8		2,629	8.6	
Manufacturing	645	3.1		708	7.5		1,354	4.4	
Transportation, communication, and public utilities	540	2.6		148	1.6		688	2.3	
Trade	5,455	25.9		2,686	28.6		8,141	26.7	
Wholesale	1,306	6.2		677	7.2		1,983	6.5	
Retail	3,869	18.4		1,903	20.3		5,772	19.0	
Finance, insurance, and real estate	1,517	7.2		1,209	12.9		2,727	9.0	
Professional and personal services	8,060	38.3		3,290	35.1		11,350	37.3	
Professional services only	5,544	26.3		2,545	27.1		8,089	26.6	
Not allocable	57	.3		47	.5		104	.3	
Total <sup>d</sup>	21,067	100.0		9,386	100.0		30,453	100.0	

Source: Treasury Department, Selected Financial Data, Statistics of Income, 1960-1961; Table 1 for sole proprietorship, Table 2 for partnership.

<sup>a</sup>"Ordinary income" less "ordinary loss" plus "payments to partners" as reported on partnership information returns.

<sup>b</sup>Wholesale and retail amounts shown do not add to total because some businesses were not allocable to either of the two.

<sup>c</sup>Professional includes medical, legal, educational, engineering and architectural, and accounting, auditing, and bookkeeping services.

<sup>d</sup>Differences in totals shown here and in Table 1 are explained by differences in sources used (see Appendix A).

Most of the AGI from unincorporated enterprise can be seen to originate from three service sectors: trade; finance, insurance and real estate; and professional and personal services. In addition, agriculture and construction accounted for significant amounts (Table 2). In contrast, manufacturing and the utilities (transport, communication, and power) accounted for 66 per cent of 1960 corporate net income, but less than 7 per cent of unincorporated enterprise income.

AGI is of course not the sole, or even best, index of industrial composition. Gross receipts, or number of businesses, may for some purposes be preferred. If gross receipts had been used, over one-half, in contrast to 28 per cent on the basis of AGI, would have been found to originate in trade; if number of businesses had been used, agriculture would have accounted for over one-third, in contrast to 11 per cent on the basis of AGI.<sup>1</sup>

### *Relation to Total Income*

In Table 1 we observed that unincorporated business and professions contributed slightly less than one-tenth to adjusted gross income reported on tax returns for 1960. Table 3 shows how this fraction has varied over time, both on tax returns and for the country as a whole. Business and professional income and total personal income are shown, first as presented in Commerce Department estimates, which include items not part of income for tax purposes; secondly, adjusted so as to make the Commerce Department estimates comparable to figures reported on tax returns—i.e., excluding items not part of income for tax purposes (AGI); and thirdly, as actually reported on tax returns.

In all three series, the tendency for unincorporated enterprise income to decline as a fraction of total income is apparent. On individual tax returns it was 18 per cent of total income reported in 1929, but only one-tenth for the most recent years. For the other two series the decline was less. When adjusted for differences in concept, the Commerce Department estimates show a decline from 17 per cent to 12 per cent.

In part, the decline in the relative share of business and professional income reported on tax returns is the result of the sharp rise in reported wages and salaries. A breakdown of income reported on tax returns by employment, property, or unincorporated enterprise is shown in Table 4 and Chart 1 for four decades. The striking changes which have taken place in the personal income tax over that period are highlighted by the

<sup>1</sup> See *Statistics of Income, U.S. Business Tax Returns, Preliminary, 1960-61*, Tables 1 and 4.

TABLE 3

UNINCORPORATED BUSINESS AND PROFESSIONAL INCOME AS A COMPONENT OF TOTAL PERSONAL INCOME AND ADJUSTED  
GROSS INCOME, 1929-60  
(dollars in billions)

	Business and Professional Income (Commerce Department estimates)	Col. 1 + Col. 2 (per cent)	Business and Professional Income <sup>a</sup> (adjusted estimates)	Adjusted Gross Income <sup>a</sup> (5)	Col. 4 + Col. 5 (per cent)	Business and Professional Income <sup>a</sup> (tax-return figures)	Adjusted Gross Income <sup>a</sup> (8)	Col. 7 + Col. 8 (per cent)
	(1)	(2)	(3)	(4)	(6)	(7)	(8)	(9)
1929	14.8	85.8	17.2	13.0	75.8	17.2	27.2	17.9
1930	11.5	78.9	15.0	9.5	62.4	15.3	19.6	15.8
1931	8.7	65.7	13.3	6.6	49.1	13.5	14.1	14.3
1932	5.3	50.1	10.6	4.1	37.1	11.2	12.3	10.0
1933	5.6	47.2	11.9	5.6	36.5	15.2	11.7	14.9
1934	7.0	53.6	13.1	7.6	44.2	17.2	14.1	15.1
1935	10.4	60.2	17.3	8.6	48.5	17.8	16.3	14.6
1936	10.5	68.5	15.3	10.3	58.0	17.8	21.0	15.3
1937	12.7	73.9	17.2	10.8	61.9	17.4	23.2	14.6
1938	11.1	68.6	16.2	9.6	55.8	17.1	20.7	15.2
1939	11.6	72.9	15.9	10.6	64.9	16.3	25.2	14.6
1940	13.0	78.7	16.5	11.7	70.4	16.6	39.6	13.7
1941	17.4	96.3	18.1	16.2	85.6	19.0	62.7	13.5
1942	23.9	123.5	19.4	21.2	107.6	19.7	85.1	14.6
1943	28.2	151.4	18.6	26.4	129.5	20.4	105.9	14.9
1944	29.6	165.7	17.8	27.8	137.8	20.2	116.9	14.8
1945	30.8	171.2	18.0	28.9	140.5	20.6	120.6	15.8
1946	36.6	179.3	20.4	34.8	157.1	22.1	134.8	17.4
1947	35.5	191.6	18.5	35.0	172.2	23.4	150.3	15.6
1948	40.2	210.4	19.1	35.2	186.1	18.9	164.1	15.0

(continued)

TABLE 3 (concluded)

	Business and Professional Income (Commerce Department estimates)	Total Personal Income (2)	Col. 1 ÷ Col. 2 (per cent)	Business and Professional Income <sup>a</sup> (adjusted estimates)	Col. 4 ÷ Col. 5 (per cent)	Business and Professional Income <sup>a</sup> (tax-return figures)	Col. 7 ÷ Col. 8 (per cent)
	(1)	(2)	(3)	(4)	(6)	(7)	(9)
1949	35.6	208.3	17.1	32.9	186.0	21.8	161.1
1950	37.5	228.5	16.4	34.6	203.2	23.5	179.9
1951	42.3	256.7	16.5	38.0	228.7	25.0	203.0
1952	42.2	273.1	15.5	38.0	242.9	24.8	216.0
1953	40.7	288.3	14.1	38.6	256.5	25.0	228.7
1954	40.4	289.8	14.0	37.3	255.6	25.5	229.2
1955	42.1	310.2	13.6	39.2	275.6	27.5	248.5
1956	43.7	332.9	13.1	41.8	296.9	30.1	267.7
1957	44.5	351.4	12.7	41.4	309.2	29.7	280.3
1958	46.1	360.3	12.8	42.6	313.0	29.9	281.2
1959	46.5	383.9	12.1	44.2	337.5	31.0	305.1
1960	46.2	400.8	11.5	43.7	350.1	30.0	315.5

## Source

Cols. 1 and 2: Income and Output, Table II-1, and Survey of Current Business.

Col. 4: Commerce Department and Agriculture Department estimates adjusted for differences in concept (see Table B-3).

Col. 5: Commerce Department estimates adjusted for differences in concept (see Appendix C).

Cols. 7 and 8: Statistics of Income. From 1929 to 1943 only net income was available in this source. For derivation of AGI, see Appendix C.

<sup>a</sup>Excludes fiduciaries 1953-60; adjusted gross income 1954-60 after sick pay and dividend exclusions.

# SOURCES AND COVERAGE

fact that property income exceeded wages and salaries reported on tax returns in 1929, but for 1960 the latter was nearly ten times the amount of the former. Most of this radical change in composition of income reported on tax returns was the result of the lowering of exemptions

TABLE 4

UNINCORPORATED BUSINESS AND PROFESSIONS, WAGES AND SALARIES, AND  
PROPERTY AS SOURCES OF INCOME REPORTED ON ALL RETURNS, 1918-60  
(million dollars)

	Adjusted Gross Income from		
	Wages and Salaries <sup>a</sup>	Business and Professions <sup>b</sup>	Property <sup>c</sup>
1918	8,267	4,268	4,546
1919	10,756	5,608	5,078
1920	15,270	4,791	5,510
1921	13,813	3,560	4,309
1922	13,694	4,128	5,755
1923	14,230	6,223	7,091
1924	13,618	6,411	8,439
1925	9,742	5,383	9,231
1926	9,994	5,168	9,444
1927	10,218	4,889	10,261
1928	10,945	4,858	12,171
1929	11,399	4,869	10,932
1930	10,206	3,102	6,268
1931	8,631	2,015	3,485
1932	8,356	1,229	2,764
1933	7,565	1,746	2,411
1934	8,681	2,125	3,305
1935	9,972	2,387	3,943
1936	11,718	3,210	6,026
1937	14,206	3,376	5,587
1938	13,307	3,132	4,233
1939	16,491	3,689	5,054
1940	27,707	5,427	6,475
1941	47,140	8,495	7,105
1942	65,617	12,455	7,040
1943	82,755	15,805	7,362
1944	91,125	17,340	8,412
1945	91,700	19,102	9,750
1946	99,174	23,384	12,196
1947	114,804	23,400	12,122
1948	125,881	24,598	13,647
1949	124,883	21,777	14,456
1950	139,073	23,514	17,273
1951	160,482	24,961	17,585
1952	174,339	24,844	16,847
1953	187,734	24,951	16,023
1954	186,305	25,452	18,038
1955	201,156	27,454	20,613
1956	216,162	30,137	22,256
1957	228,651	29,698	22,854
1958	228,173	29,905	24,016
1959	248,048	30,995	27,080
1960	258,593	30,038	27,894

## SOURCES AND COVERAGE

which has occurred gradually since the early 1930's.<sup>2</sup> As a consequence, unincorporated business and professional income rose in relation to property income, but fell sharply in relation to wages and salaries on tax returns. The net result has been a decline from about one-fourth to one-tenth of AGI since 1918.

The relative decline of total unincorporated business and professional income is, however, not matched by a decline in the relative frequency of returns with such income. As Table 5 shows, the frequency with which individuals have reported either sole proprietor or partnership income has, if anything, increased since the mid-1940's. Over the same period, the relative share of business and professional income in the total reported has fallen from 15 to 10 per cent. The reason for this divergence will become evident when we examine the composition of income reported on returns with profit or loss from unincorporated business and profession in Chapter 3.

The percentages in Table 3 revealed that business and professional income has been a smaller fraction of AGI on tax returns than of estimated total AGI. For example:

	<i>On Tax Returns</i>	<i>Derived from Personal Income Estimates</i>
1939	.15	.16
1960	.10	.12

<sup>2</sup> Exemptions have declined not merely in absolute dollar amount since the 1930's but also relative to the level of money incomes. Even if there had been no decline in the nominal exemption allowance, the number of family units whose income is below the exemption level would have declined sharply because of the rise, real and inflationary, in the general level of incomes.

---

### NOTES TO TABLE 4

Source: Treasury Department, Statistics of Income.

<sup>a</sup> Wages and salaries include sick pay.

<sup>b</sup> Net profit less net loss of sole proprietors and partners.

<sup>c</sup> Derived residually by subtracting wages and salaries and business and professional income from reported AGI (Appendix C); hence a small amount of the residual may not be property income in a strict economic sense. Included are: dividends (before exclusions), interest, rents and royalties, sale of capital and other assets, income from estates and trusts, pensions and annuities, alimony, gambling profits, and share in current year taxable income of small business corporations electing not to be taxed as corporations.

Note: For 1918-27, amounts shown are only for returns with net income; thereafter, returns with no net income are included. From 1953 on, returns of fiduciaries are excluded.



## SOURCES AND COVERAGE

It follows from these figures that one or more other income components must display an opposite relationship from that found for business and professional income. This is the case for income from employment for recent years:<sup>3</sup>

	<i>On Tax Returns</i>	<i>Derived from Personal Income Estimates</i>
1939	.65	.70
1960	.82	.76

From 1941 on, wages and salaries comprised a greater relative share of income on tax returns than of estimated total income (Chart 2). For business and professional income, the share on tax returns has been smaller than in total income throughout the period 1932-60. The explanation for this could be twofold. First, it is possible that the greater relative dispersion of adjusted gross income on returns with income from unincorporated business or profession than on returns without such income causes its coverage to change over time relative to that for other income components. The less equal distribution of income on returns with business and professional profit or loss than on returns with wages and salaries may affect the extent to which these two income types are covered on tax returns.<sup>4</sup> Though the average AGI of persons with business and professional income has been higher than the average AGI of those with wages and salaries, the relative dispersion of the former was also greater than that for the latter. As long as the average amount of personal exemptions for persons with wage or salary income was above their average taxable incomes, the proportion covered was likely to be lower than for entrepreneurial income. But once personal exemptions were lowered to a level below the average income of those with wages and salaries, the relationship may have been reversed. It is conceivable that the group with a more equal distribution of income, though it has a lower mean income, has a higher coverage ratio than the group with the higher mean income and the less equal distribution.<sup>5</sup>

<sup>3</sup> The ratios were computed from the following tables: income from employment, Tables 4 and 6; AGI, Table 3.

<sup>4</sup> See note 14 below for a discussion of the evidence on relative size distribution of income among wage earners and self-employed proprietors.

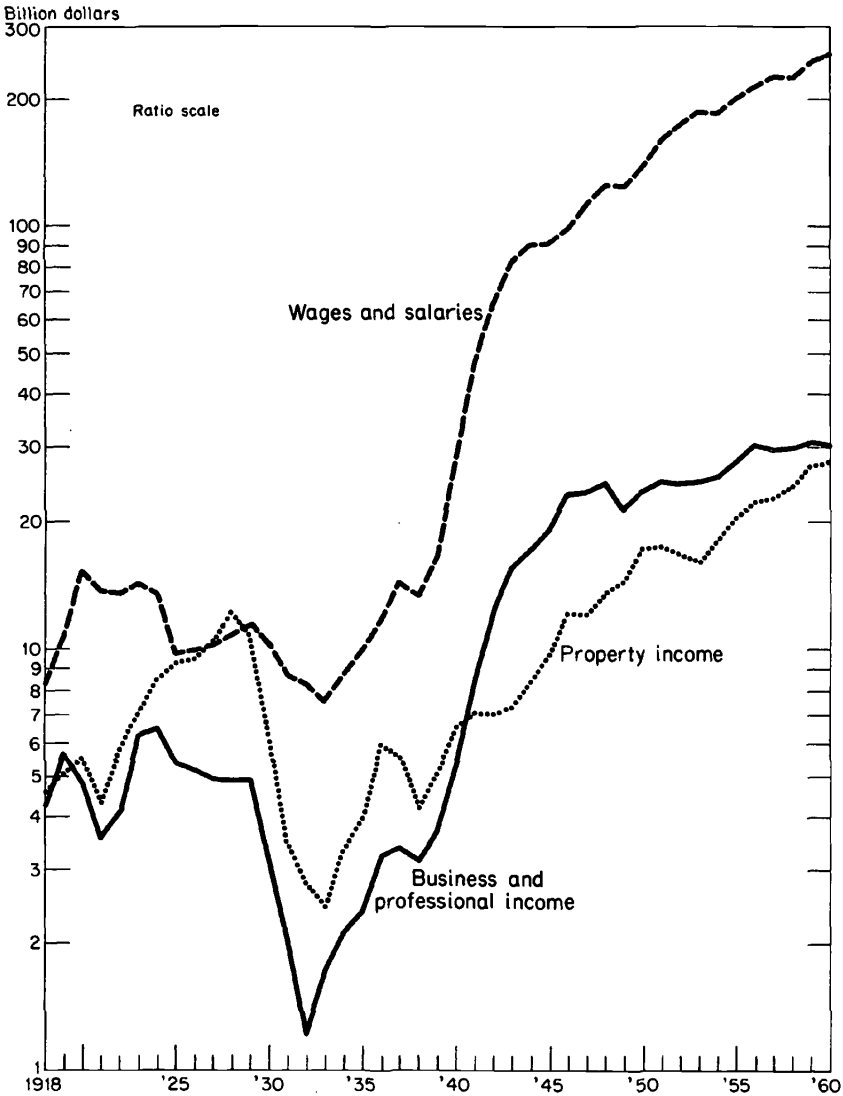
<sup>5</sup> A simple example will serve to illustrate this point. Assume a universe with two wage earners and two proprietors, whose incomes are as follows:

	<i>Wage Earners</i>	<i>Proprietors</i>
a	\$1,200	\$ 800
b	1,300	2,000
Average income	1,250	1,400

# SOURCES AND COVERAGE

## CHART 1

**Business and Professional Income, Wages and Salaries, and  
Property Income Reported on All Tax Returns, 1918-60**



SOURCE: Table 4.

If the exemption for each is \$1,500, the proprietors will have a coverage ratio of 71 per cent (assuming exact income reporting) whereas wage earners will have zero coverage. But if the exemption now were lowered to \$1,000, wage earners' income will be 100 per cent reported while proprietors' income will continue at 71 per cent coverage.

TABLE 5

TOTAL NUMBER OF TAX RETURNS RELATED TO NUMBER WITH  
SOLE PROPRIETOR AND PARTNERSHIP INCOME, 1937-60  
(in thousands)

	Total No. of Returns (1)	Returns with Sole Proprietorship Income		Returns with Partnership Income		Returns with Sole Proprietorship and/or Partnership Income <sup>a</sup>	
		Number (2)	Col. 2 ÷ Col. 1 (per cent) (3)	Number (4)	Col. 4 ÷ Col. 1 (per cent) (5)	Number (6)	Col. 6 ÷ Col. 1 (per cent) (7)
1937	6,350	850	13.4	263	4.1		
1944	47,204	6,143	13.0	1,187	2.5		
1945	50,046	5,856	11.7	1,539	3.1		
1946	52,938	6,954	13.1	1,709	3.2		
1947	55,209	7,051	12.8	2,095	3.8		
1948	52,173	7,216	13.8	1,818	3.5		
1949	51,914	6,721	12.9	2,257	4.3		
1950	53,175	6,873	12.9	2,132	4.0		
1951	55,563	7,183	12.9	1,919	3.5		
1952	56,662	6,880	12.1	1,843	3.3		
1952	56,529	6,873	12.2	1,833	3.2		
1953	57,838	7,403	12.8	1,891	3.3		
1954	56,747	7,786	13.7	1,817	3.2		
1955	58,250	8,245	14.2	1,955	3.4	9,824	16.9
1956	59,197	8,973	15.2	1,796	3.0		
1957	59,825	8,250	13.8	1,872	3.1		
1958	59,085	8,381	14.2	1,878	3.2		
1959	60,271	8,610	14.3	1,948	3.2	10,173	16.9
1960	61,028	8,599	14.1	1,919	3.1		

## SOURCES AND COVERAGE

The second reason why unincorporated enterprise may be less significant as a source of income as reported on tax returns than of total income as estimated, could be that persons receiving such income report it with less accuracy than is common for some other income types. Reporting practices for business and professional income need not even have changed over time to explain its sharp decline relative to wages and salaries on tax returns. The decline of exemptions, both absolutely and relative to income, may have brought to the fore differences in coverage which had previously been veiled by the greater effect of exemptions on income coverage. We shall devote the following section to a closer examination of the importance of these factors in influencing the coverage of unincorporated enterprise income on tax returns.

### *Coverage on Tax Returns*

In Table 6, entrepreneurial income reported on tax returns and the estimated total are shown for the years 1929–60. The estimated total consists of amounts potentially available for inclusion in the tax base. In accordance with income tax law and practice, which has in general excluded nonmoney income from taxation, it is in effect a money income figure and excludes such items as food and fuel produced and consumed on farms, and imputed income of nonfarm proprietors. We referred to it as a “potentially available” total because it includes earnings of persons whose income is too low to require reporting on tax returns and also income that, though it is reported, is not taxable.

The direction of movement in the two series, relative to one another, is as expected: the amounts reported on tax returns in the decade preceding the 1940's is merely one-third of the estimated total. With the lowering of exemptions and the rise in incomes in the 1940's, coverage had jumped to two-thirds by 1945 and remained at that level through 1953. Thereafter, another small rise occurred. For the three most recent years, 1958–60, coverage has been near 70 per cent.

In comparison, over nine-tenths of wages and salaries have been accounted for on personal tax returns since 1944, and nearly 97 per cent

---

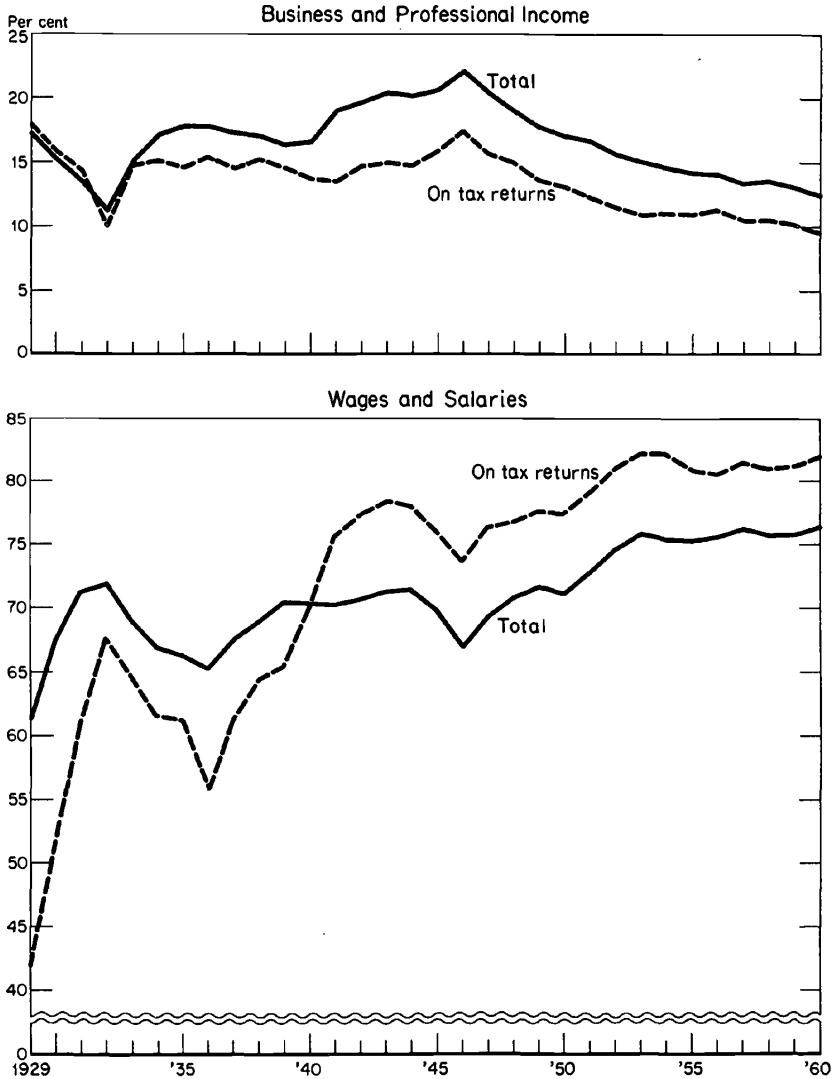
#### NOTES TO TABLE 5

Source: Treasury Department, Statistics of Income. Fiduciary returns excluded after 1952.

<sup>a</sup>The number of returns with income from either sole proprietorship or partnership, or both, could only be calculated for 1955 and 1959. For source, see Table 33.

# SOURCES AND COVERAGE

**CHART 2**  
**Business and Professional Income and Wages and Salaries as**  
**Percentage of Adjusted Gross Income, 1929-60**



SOURCE: Business and professional income—Table 3. Wages and salaries on tax returns—col. 1, Table 4 divided by col. 8, Table 3. Total wages and salaries—derived as shown in Appendix C.

# SOURCES AND COVERAGE

TABLE 6

BUSINESS AND PROFESSIONAL INCOME REPORTED ON TAX RETURNS RELATED  
TO ESTIMATED TOTAL, 1929-60  
(million dollars)

	Amount Reported (1)	Estimated Total (2)	Col. 1 ÷ Col. 2 (per cent) (3)
1929	4,869	13,031 <sup>a</sup>	37.4
1930	3,102	9,533	32.5
1931	2,015	6,645	30.3
1932	1,229	4,146	29.6
1933	1,746	5,550	31.5
1934	2,125	7,585	28.0
1935	2,387	8,633	27.6
1936	3,210	10,295	31.2
1937	3,376	10,781	31.3
1938	3,312	9,556	32.8
1939	3,689	10,611	34.8
1940	5,427	11,674	46.5
1941	8,495	16,235	52.3
1942	12,455	21,228	58.7
1943	15,805	26,449	59.8
1944	17,340	27,833	62.3
1945	19,102	28,902	66.1
1946	23,384	34,785	67.2
1947	23,400	35,020	66.8
1948	24,598	35,235	69.8
1949	21,777	32,891	66.2
1950	23,514	34,637	67.9
1951	24,961	37,978	65.7
1952	24,844	37,967	65.4
1953	24,951	38,646	64.6
1954	25,452	37,343	68.2
1955	27,454	39,154	70.1
1956	30,137	41,845	72.0
1957	29,698	41,426	71.7
1958	29,905	42,555	70.3
1959	30,995	44,230	70.1
1960	30,038	43,658	68.8

## Source

Col. 1: Statistics of Income, Individual Income Tax Returns, including fiduciary returns through 1952.

Col. 2: Estimated by methods outlined in Table B-3. For an explanation of the discrepancy between this column and line 12, Table B-3, see note to lines 9 and 10, Table B-2.

<sup>a</sup>Omits capital gains adjustment for farm proprietors.

## SOURCES AND COVERAGE

after 1950. Close to 90 per cent of dividends are reported for 1936–53, and between 80 and 90 per cent for the years thereafter. In contrast, only somewhat over 60 per cent of personal interest receipts were covered on tax returns during 1956–59 (Table 7).

### COVERAGE ON TAX RETURNS BY FARM AND NONFARM ENTERPRISE

Additional information on the coverage of unincorporated enterprise income may be obtained by breaking the totals into their farm and nonfarm components. A finer breakdown is not possible with the data at our disposal.

Farm and nonfarm entrepreneurial income accounted for on tax returns is compared with estimated total farm and nonfarm income in Table 8 for selected years, 1939–60. The amounts shown on line 1 differ somewhat from the totals shown under the same heading in Table 6. The difference arises because the data in Table 6 are based on the Internal Revenue Service's annual income-size tabulations whereas those in Table 8 are based on its industrial tabulations, published at irregular intervals. These differences, and the adjustments required to make the tax return figures conceptually consistent with corresponding total income estimates, are fully discussed in Appendix B. However, some weaknesses in the comparison of amounts reported on tax returns and estimated totals should be noted at the outset.

The estimates for total income of nonfarm business and professional proprietors are substantially those of the National Income Division of the Commerce Department. Those for farm proprietors are derived from estimates developed by the Agriculture Department. The Commerce Department estimates of nonfarm *business* income, however, rely heavily on tax return information. Thus circularity enters the comparison of tax return coverage with total income. This is considerably lessened by a number of adjustments made to correct for both underreporting of income and underenumeration of proprietors on tax returns. But to the extent that these corrections (described in more detail in Appendix B) fail to remove some of the peculiarities of tax return data, some circularity remains. The importance of this qualification of the data is reinforced when we recall (as shown in Table 2) that of \$30 billion of unincorporated enterprise income reported for 1960, about \$19 billion, or nearly two-thirds, originated in the so-called nonfarm business sector. For unincorporated farm enterprise income, two variants are presented in Table 8.<sup>6</sup> Variant I is obtained by treating the depreciation, taxes,

<sup>6</sup> For this reason two variants are also shown for total estimated business and professional income, even though only a single variant was calculated for nonfarm business and professional income.

TABLE 7

TOTAL WAGES AND SALARIES, DIVIDENDS, AND INTEREST RECEIPTS REPORTED ON TAX RETURNS COMPARED WITH ESTIMATED TOTAL, 1936-60  
(billion dollars)

	Wages and Salaries			Dividends <sup>a</sup>			Interest		
	Reported on Tax Returns (1)	Estimated Total (2)	Col. 1 + Col. 2 (per cent) (3)	Reported on Tax Returns (4)	Estimated Total (5)	Col. 4 + Col. 5 (per cent) (6)	Reported on Tax Returns (7)	Estimated Total (8)	Col. 7 + Col. 8 (per cent) (9)
1936	11.7	37.8	31.0	4.0	4.3	93.7			
1939	16.5	45.7	36.1	3.3	3.5	93.1			
1941	47.1	60.0	78.5	4.2	4.1	102.6			
1943	82.8	92.2	89.8	3.7	4.1	91.1			
1945	91.7	98.1	93.5	3.9	4.3	91.2			
1947	114.8	119.4	96.2	5.5	5.9	93.3			
1949	124.9	133.2	93.7	6.6	6.8	97.6			
1953	187.7	194.5	96.5	7.6	8.3	90.7			
1954	186.0	192.7	96.5	7.6	8.6	89.1			
1955	200.7	207.6	96.7	8.5	9.8	86.5			
1956	215.6	224.5	96.1	9.3	10.4	88.9	3.5	5.5	62.5
1957	228.1	235.5	96.9	9.8	10.7	91.5	4.0	6.5	61.2
1958	227.6	236.6	96.2	9.1	10.1	89.8	4.4	7.0	62.7
1959	247.4	255.6	96.8	9.7	10.8	90.2	5.4	8.2	65.4
1960	257.9	267.1	96.6						

Source

Cols. 1 and 2: See Appendix Table C-1.

Cols. 4 and 5: Daniel M. Holland, Dividends Under the Income Tax, Princeton for NBER, 1962, Table 26, Variant 2, lines 4 and 14. For 1958 and 1959, President's Tax Message along with Principal Statement, Detailed Explanation, and Supporting Exhibits and Documents, 1961, p. 143.

Cols. 7 and 8: President's Tax Message, p. 145.

<sup>a</sup>Includes fiduciaries 1936-57. Other differences between the two sources are minor.



TABLE 8

INCOME FROM UNINCORPORATED ENTERPRISE REPORTED ON TAX RETURNS AS PERCENTAGE OF ESTIMATED TOTAL, BY FARM AND NONFARM, 1939-60  
(dollars in millions)

	1939	1941	1943	1945	1947	1949	1953	1955	1956	1957	1958	1959	1960
1. Total reported on tax returns	4,042	8,456	15,761	18,837	22,784	21,933	25,401	26,612	29,836- 30,740	29,981	30,337	31,386	30,453
2. Nonfarm business and professional	3,881	6,597	11,812	15,052	16,923	17,106	21,592	23,627- 23,442	25,809	26,120	25,974	28,191	27,204
3. Farm operators	161	1,859	3,949	3,785	5,859	4,827	3,810	2,985- 3,170	4,027- 4,931	3,861	4,363	3,195	3,249
4. Estimated total													
Variant 1	10,593	16,199	26,373	28,841	34,939	32,834	38,733	39,262	41,943	41,537	42,671	44,350	43,772
Variant 2	10,054	15,625	25,727	28,128	33,821	31,800	37,446	37,986	40,613	40,169	41,277	42,893	42,304
5. Nonfarm business and professional	7,498	11,526	16,955	19,111	21,359	22,141	27,645	30,537	32,517	32,994	32,456	35,320	34,069
6. Farm operators	3,095	4,673	9,418	9,730	13,580	10,693	11,088	8,725	9,426	8,543	10,215	9,030	9,703
Variant 1	2,556	4,099	8,772	9,017	12,462	9,659	9,801	7,449	8,096	7,175	8,821	7,573	8,235
7. Reported amounts by estimated total													
Variant 1	.38	.52	.60	.65	.65	.67	.66	.68	.71-	.72	.71	.71	.70
Variant 2	.40	.54	.61	.67	.67	.69	.68	.70	.73- .76	.75	.73	.73	.72
8. Nonfarm business and professional	.52	.57	.70	.79	.79	.77	.78	.77	.79	.79	.80	.80	.80
9. Farm operators	.05	.40	.42	.39	.43	.45	.34	.34-	.43-	.45	.43	.35	.33
Variant 1								.36	.52				.52
Variant 2	.06	.45	.45	.42	.47	.50	.39	.43	.50-	.54	.49	.42	.39
								.43	.61				.61

## SOURCES AND COVERAGE

and interest connected with farm dwellings as a personal nondeductible expense, as required by tax law. This is the variant used for the analysis below, except as otherwise noted. Variant II is obtained by following a possibly widespread practice of treating all, or most, expenses connected with a farm dwelling as part of the farm business expense. The separation between personal and business expense on a farm is in any case difficult and bound to involve arbitrary divisions. Variant-II estimates are therefore presented alongside Variant-I estimates. A significant portion of farm income appears to be derived from livestock sales. If the animals sold were used for breeding, draft, or dairy purposes, many farmers report the net income from such sales as long-term capital gain rather than in the farm business schedule. Estimates of such capital gains were subtracted from the farm income estimates derived from the Department of Agriculture figures.<sup>7</sup>

Of an estimated \$34 billion adjusted gross income obtained by proprietors from nonfarm business and profession, \$27 billion, or 80 per cent, is accounted for by tax return tabulations. For farm operators, only \$3.2 billion of an estimated total of \$9.7 billion, or between 33 and 40 per cent, was accounted for. Both of these coverage ratios had reached this level during the first half of the 1940's. For 1939, the single prewar year for which we have an industrial breakdown, only 5 per cent of

<sup>7</sup> The reported figure for net long-term capital gains from the sale of livestock for 1959 was \$701 million (see Treasury Department, *Sales of Capital Assets Reported on Individual Income Tax Returns for 1959, Statistics of Income*, Supplemental Report, Table 2). This figure served as a benchmark for the estimates for other years (see Appendix Table B-3).

---

### NOTES TO TABLE 8

Source: Lines 1 through 3: Table B-1, except for lines 1 and 3 in 1956 which were obtained as the difference between the nonfarm figure from the industry tabulation (\$25,809) and total unincorporated enterprise income from the annual income-size tabulation for individuals (shown in Table A-1, col. 6). Since the income figures from the two sets of estimates are hardly ever precisely the same, the "industry" figure having in recent years varied from 99 to 102 per cent of the "income-size" figure (see Table A-1), these two percentages were used to estimate a likely range for the farm net income estimate:

lower limit	upper limit
30,137 x .99 = 29,836	30,137 x 1.02 = 30,740
<u>-25,809</u>	<u>-25,809</u>
4,027	4,931

Lines 4 through 6: Table B-3.

Note: Variant 1 refers to farm operators' net income before deduction of depreciation, taxes, and mortgage interest on farm dwellings. Variant 2 is farm net income after deduction of these items.

farm operators' income, but over one-half of unincorporated business and professional income, was accounted for on tax returns. By 1941, after the drastic cut in personal exemptions and the rise in incomes that accompanied the outbreak of the war, 40 per cent of farm and 57 per cent of nonfarm enterprise income were covered. Thus, most of the increase in coverage between 1939 and 1941 is explained by the sharp rise from 5 to 40 per cent in the coverage of the farm component.<sup>8</sup>

In the years following, both farm and nonfarm proprietors' income rose steeply. But the coverage of farm income on tax returns did not increase substantially. By 1947, total farm income had reached a peak of \$13.7 billion, triple the amount of 1941, and filing requirements had been further reduced by one-third below 1941. At the same time, the number of farms had declined from 6.3 to 5.9 million—a factor one might expect to operate in the same direction as income and exemptions in increasing the coverage of farm income. Yet the coverage of farm operators' income rose only from 40 to 43 per cent between 1941 and 1947. By 1953, total farm operators' net income had declined to \$11.2 billion from its 1947 peak; but the number of farms had now fallen to 5 million and filing requirements were still below the 1941 level. In the face of this moderate decline, 1953 coverage fell sharply to one-third of farm enterprise income. Since 1953, both the estimated total of farm income and the amount reported on tax returns have continued the irregular decline begun in the 1940's (lines 3 and 6, Table 8). However, the decline in total farm net income has not been accompanied by a further decline in coverage on tax returns but remained at roughly one-third as late as 1960 (line 9, Table 8), and somewhat over 40 per cent in the period 1956–58.<sup>9</sup> The decline in coverage after 1958 is difficult to explain.

<sup>8</sup> Assume, for instance, that the coverage of farm income had been the same in 1939 as in 1941, so that only the coverage of the nonfarm component would have risen. In that case, 48 per cent of the total would have been reported in 1939, and the rise would have been only 4 percentage points between 1939 and 1941.

<sup>9</sup> Starting in 1955, self-employed farmers were included in Old Age and Survivors Insurance (Social Security). In connection with this, they were also subject for the first time to the payment of a self-employment tax. The data presented in Tables 8 through 10 do not unambiguously suggest that their liability to self-employment tax (which is paid in conjunction with income tax) has had a pronounced or identifiable influence on farmer income coverage. A rise in coverage from one-third to over 40 per cent occurred in 1956 and remained at that level until 1958. The probable effect of the self-employment tax is most clearly observed in the change in number of farm sole proprietors filing returns (Table 10). The latter rose from 3.1 to 3.4 million from 1953 to 1955 and then remained at that level. In contrast to this evidence, it must be noted (Table 8) that after 1958 farm income coverage returned to its 1953–55 level of one-third.

# SOURCES AND COVERAGE

Total farm net income declined only from \$10.4 to \$9.8 billion, whereas the reported amount showed a sharp drop from \$4.4 to \$3.2 billion.

Tables 9 and 10 give further evidence of the striking discrepancy between total farm net income as estimated and as reported on tax returns. For 1939 and 1941 the average amounts accounted for on returns are much higher than the averages for the country as a whole. This is what one would expect, considering that only about one in forty farms for 1939 and one in five for 1941 were represented on tax returns. Those who are reporting may be presumed to have larger incomes, on

TABLE 9  
AVERAGE FARM INCOME FROM FARM ENTERPRISE AS REPORTED  
ON TAX RETURNS AND AS ESTIMATED, 1939-60

	Average Farm Net Income Reported		Estimated Average Farm Net Income <sup>a</sup>		Col. 3 ÷ Col. 2 (5)	Col. 4 ÷ Col. 2 (6)
	Sole Proprietors (1)	Sole Proprietors and Partnerships (2)	Variant 1 (3)	Variant 2 (4)		
1939	771	1,019	479	396	.47	.39
1941	1,417	1,545	741	650	.48	.42
1943	1,365	1,507	1,543	1,437	1.02	.95
1945	1,256	1,373	1,626	1,507	1.18	1.10
1947	1,780	1,941	2,307	2,117	1.19	1.09
1949	1,430	1,551	1,864	1,684	1.20	1.09
1953	1,079	1,168	2,221	1,963	1.90	1.68
1955	773	n.a.	1,871	1,597	n.a.	n.a.
1957	967	1,109	1,952	1,639	1.76	1.48
1958	1,115	1,243	2,413	2,084	1.94	1.68
1959	782	908	2,206	1,850	2.43	2.04
1960	815	932	2,455	2,084	2.63	2.24

Source: Col. 1: Line 8, Table B-1 divided by column 1, Table 10.  
Col. 2: Line 3, Table 8 divided by column 3, Table 10.  
Col. 3: Line 13 minus line 9, Table B-2 divided by column 4, Table 10.  
Col. 4: Line 14 minus line 10, Table B-2, divided by column 4, Table 10.

<sup>a</sup>See Table 8 for explanation of variants.

# SOURCES AND COVERAGE

TABLE 10

NUMBER OF FARM BUSINESSES ACCOUNTED FOR ON INDIVIDUAL TAX RETURNS,  
1939-60  
(in thousands)

	Sole Proprietors (1)	Partnerships (2)	Number of Noncorporate Farms		Col. 3 + Col. 4 (per cent) (5)
			On Tax Returns (Col. 1 + Col. 2) (3)	Total (4)	
1939	140	18	158	6,433	2.5
1941	1,161	42 <sup>a</sup>	1,203	6,285	19.1
1943	2,560	60 <sup>a</sup>	2,620	6,082	43.1
1945	2,659	97	2,756	5,961	46.2
1947	2,904	114	3,018	5,864	51.5
1949	2,987	125 <sup>a</sup>	3,112	5,714	54.5
1951	3,139			5,420	
1953	3,126	135	3,261	4,975	65.5
1955	3,417			4,645	
1957	3,343	137	3,480	4,361	79.8
1958	3,374	135	3,509	4,220	83.2
1959	3,387	132	3,518	4,083	86.2
1960	3,359	126	3,485	3,933	88.6

Source: Cols. 1-3: Statistics of Income.

Col. 4: U. S. Department of Agriculture, Farm Situation, July 1962, p. 46, number of farms minus number of farm corporations as given in Statistics of Income.

<sup>a</sup>Total number of partnership returns are available by year in Statistics of Income, 1949, p. 71. These figures were multiplied by the ratio of farm returns to total returns of partnerships for the years this ratio was available.

average, than those who are not reporting.<sup>10</sup> The share of the reporting group in the income total is thus also larger than its share on a population basis: the 20 per cent of farms represented on returns in 1941 accounted for 40 per cent of farm net income. But this expected rela-

<sup>10</sup> Among those not reporting were undoubtedly many farm operators with extremely small incomes. According to estimates by Nathan M. Koffsky and Jeanne E. Lear for 1946, about 2.7 million farm operators out of a total of 5.9 million had gross cash farm incomes of less than \$1,000. See their "Size Distribution of Farm Operators' Income in 1946," *Studies in Income and Wealth*, 13, New York, NBER, 1951, p. 228.

## SOURCES AND COVERAGE

tion had changed by 1943. Beginning with that year, the proportion of farms reported on exceeded by increasing amounts the proportion of income accounted for. In the latest year, 1960, the number of tax returns with farm income equalled 89 per cent of the estimated number of unincorporated operating farms. Yet the net income reported accounted for only 33 to 39 per cent of the total, as we have seen. The relation is the opposite of what one would expect to find.

For business and professional income, coverage rose from 57 per cent in 1941 to a level of 79 per cent in 1945. It has remained within 2 percentage points of that level since then. The small rise in the over-all coverage ratio since the war does not appear to be explained by a rise in coverage within either the farm or business and professional groups, but mainly by the increasing relative share of the nonfarm sector (see lines 5 and 6 of Table 8). As the weight of nonfarm income, with its "higher" coverage ratio, increases, the over-all coverage ratio for unincorporated enterprise income rises.<sup>11</sup>

No attempt is made to show the relative number of nonfarm proprietors represented on tax returns, as was done for farmers in Table 10. What constitutes an unincorporated business or a self-employed person is subject to various definitions. On the tax return, anyone with self-employment income may use the business schedule of the return to list such income. This naturally makes the number of self-employed proprietors larger on tax returns than that estimated with more restrictive definitions by the Commerce Department's National Income Division. The latter counts as self-employed only those active proprietors of enterprises who devote the major portion of their time to the business. In the statistics on business firms, only those firms are included which have at least one paid employee or an established place of business. Consequently we find the following frequencies for nonfarm unincorporated businesses (in thousands):

	NID <sup>a</sup> (1)	Tax Returns <sup>b</sup> (2)	(2) ÷ (1) (3)
1945	2,664	3,171	1.19
1947	3,239	3,994	1.23
1953	3,640	4,826	1.33

<sup>a</sup> Betty C. Churchill, "Business Population by Legal Form of Organization," *Survey of Current Business*, April 1955, p. 15.

<sup>b</sup> IRS, *Statistics of Income*.

<sup>11</sup> The qualifications of the nonfarm unincorporated business estimates on pp. 28 and 31 should be noted and borne in mind.

## SOURCES AND COVERAGE

The above figures do not include professional practitioners such as doctors, lawyers, and accountants. For this group, the NID estimates of the number of active proprietors may be more nearly comparable with the tax return figures, since most professional practitioners probably devote the major portion of their working time to their profession. But even here the IRS figure includes some professionals who are, for the most part, employees, and we may double count some who are both partners and sole proprietors, or who are partners in more than one partnership.<sup>12</sup>

From the figures presented it is apparent that the difference in coverage between unincorporated enterprise income and wages and salaries is not solely attributable to the low coverage of farm income. Nonfarm enterprise income has also had a lower coverage than that of employees since 1941 (Table 11). It is frequently thought that withholding of tax at the source accounts for the difference in coverage between wages and salaries and other income types not subject to withholding. Yet the coverage ratio for wages and salaries exceeded that for nonfarm enterprise income as early as 1941, two years before withholding at the source was instituted. This would suggest that the reporting of wages and salaries was more accurate than that of enterprise income even before World War II. If the income of employees were found to have risen more than that of nonfarm proprietors over the years in question, a relative

<sup>12</sup> The respective frequencies (in thousands) are as follows:

	<i>NID Active Proprietors<sup>a</sup></i>	<i>IRS Sole Proprietors and Partners<sup>b</sup></i>	(2) ÷ (1)
	(1)	(2)	(3)
1939	519	220	.42
1945	433	354	.82
1947	513	457	.89
1953	586	555	.95
1956	625	669	1.07
1957	638	694	1.09
1958	641	704	1.10
1959	648	782	1.21
1960	651	756	1.16

<sup>a</sup> Department of Commerce, *U.S. Income and Output, and Survey of Current Business*, Table VI-13 and VI-16, lines 75-78.

<sup>b</sup> Internal Revenue Service, *Statistics of Income*. The number of partnerships for 1939 and 1945 were multiplied by 2.62, the ratio of partners per professional partnership for 1947. For 1953 and 1959 the ratios were 2.63 and 2.79, respectively. Simple straight-line interpolation was used to estimate the ratios for 1956-58. For 1960, the 1959 ratio was used.

# SOURCES AND COVERAGE

TABLE 11

INCOME FROM WAGES AND SALARIES AND NONFARM BUSINESS AND PROFESSIONS: AVERAGE AMOUNT PER RECIPIENT AND PERCENTAGE REPORTED ON TAX RETURNS, 1939-60

	Nonfarm Entrepreneurial Income		Wages and Salaries	
	Percentage Reported (1)	Average Per Proprietor (dollars) (2)	Percentage Reported (3)	Average Per Employee (4)
1939	52	1,514	36	1,253
1941	57	2,292	78	1,392
1943	70	3,751	90	1,692
1945	79	4,167	94	1,816
1947	79	3,746	96	2,503
1949	77	3,809	94	2,815
1953	78	4,436	96	3,509
1955	77	4,757	97	3,770
1956	79	4,965	96	3,963
1957	79	4,996	97	4,132
1958	80	4,938	96	4,269
1959	80	5,211	97	4,483
1960	80	5,045	97	4,634

## Source

Col. 1: Table 8.

Col. 2: Line 9 minus line 2, Table B-3, divided by number of active proprietors (Commerce Department, Income and Output and Survey of Current Business, July, 1962, Tables VI-13 and VI-16).

Col. 3: Column 3, Table 7 (figures rounded).

Col. 4: Wages and salaries as derived in Appendix Table C-1 divided by number of full-time equivalent employees (Commerce Department, Income and Output and Survey of Current Business, July, 1962, Table VI-13).

rise in coverage of wages and salaries could be explained by the increased amount of taxable income from that source rather than more accurate reporting practices. But it is unlikely that the incomes of employees rose more than those of nonfarm proprietors. As shown in Table 11, average business and professional income rose from \$1,514 to \$4,167 between



1939 and 1945, whereas average wages and salaries rose only from \$1,253 to \$1,816.<sup>13</sup>

It is also possible, as explained earlier in this chapter, that the relative size distributions of two income types differ so radically that the one with the lower average per recipient has nevertheless a higher ratio of reported to total income. Applied to the case under study, if employee income were equally distributed and exceeded the exemption level, it might be nearly 100 per cent reported despite a low average income per employee. On the other hand, if entrepreneurial income were unequally distributed, so that some proprietors had extremely high and others very low incomes, this group could conceivably have a lower reporting ratio than employees and yet a higher average income per proprietor. While entrepreneurial income is indeed less equally distributed than wages and salaries,<sup>14</sup> the difference does not appear large enough to explain the lower reporting ratio for proprietors. This judgment is based on the data presented in the next section, where the unincorporated enterprise income of persons with income too low to require reporting is discussed.

#### *Effect on Coverage of Income Below Filing Requirement*

As we have seen, the difference between estimated and reported business and professional income is large. Barring estimating or conceptual errors

<sup>13</sup> Both proprietors and employees usually have, of course, some income from other sources, and many are employees in some capacities and self-employed in others. But if this were taken into account, it would tend to raise the income figures of proprietors more than that of employees. As we shall see below (Table 18), income from unincorporated enterprises accounted for 50.2 per cent of estimated adjusted gross income of sole proprietors and partners for 1959. In contrast, wages and salaries constituted 93 per cent of estimated adjusted gross income on returns of employees.

<sup>14</sup> We have no direct evidence for all years regarding the equality of the distribution of income among wage earners and persons with self-employment income. The usual Lorenz distributions are by size of the specified receipt rather than total income of recipients. For the mid-thirties, data on variability of total income for wage earners and proprietors show greater variability for the latter than the former. But, strictly speaking, these data are not as inclusive as required for our purpose. They cover the total income of units whose largest source of income is wages and salaries or entrepreneurial income, and therefore do not include the income of those whose wages and salaries or entrepreneurial profit and loss are a secondary source of income. See Frank A. Hanna, Joseph A. Pechman, and Sidney M. Lerner, *Analysis of Wisconsin Income*, Studies in Income and Wealth, 9, New York, NBER, 1948, pp. 91-92; and Milton Friedman and Simon Kuznets, *Income from Independent Professional Practice*, New York, NBER, 1945, pp. 71-73. Our statistics, of course, deal with all unincorporated enterprise income and, in a strict sense, require an estimate of the total income of all persons with such income, regardless of whether the latter is the major or only a minor source of the income of which it is a component. For 1955, we were able to estimate total AGI for returns showing wage and salary income and for returns with entrepreneurial income by size of AGI. The coefficient of inequality for wage and salary recipients is .40, whereas that for persons reporting entrepreneurial income is .57.

of that magnitude, the difference must be explained by (1) taxpayers' errors in reporting their income, and/or (2) the amounts received by persons with incomes too low to be required to file a tax return.

An estimate of the amount of business and professional income legally not required to be reported should ideally take into account two filing requirements. First, that any person with gross income over \$600 (\$1,200 if a person is over 65) must file a tax return. Second, that any person with net income from business or profession of \$400, or more, is subject to self-employment tax and must for this reason file a tax return. The only exceptions to the latter requirement are income from the performance of services as a doctor of medicine, or when an individual had wages of \$4,800 or more which were subject to social security tax. To obtain a precise estimate of unincorporated business and professional income received by persons not required to file a return, it would be necessary to construct a distribution of taxpayer units by size of business and professional income and by size of AGI. This would allow the identification of those with income below the general filing requirement as well as less than \$400 from self-employment. Such a distribution should of course be independent of the tax return tabulations of the Treasury Department. But the necessary data are not readily available.

For our present purpose it appears sufficient to obtain a rough and approximate notion of how important income below the filing requirement might be in explaining the gap between reported and total entrepreneurial income. Accordingly, we used the Census Bureau's frequency distributions for families and unrelated individuals by size of specific source as a basis for judgment. The Census frequency of families and unrelated individuals reporting income of less than \$500 from self-employment is compared to the number of tax returns on which less than \$500 from sole proprietorship and/or partnership is reported (Table 12).<sup>15</sup> Evidently the Census and tax return frequencies are so close as to give no basis for supposing that income below the filing requirement could account for any substantial omission of entrepreneurial income from tax returns. For each of the three groupings shown in Table 12, the frequencies from the two sources correspond closely, and it is as close for the total as for the two lower size groups shown. The latter would argue against the possibility that underreporting on tax returns moved a spuriously large number into the lowest size groups.

<sup>15</sup> The lowest size group in the Census tabulations is \$500 and less. It was thus the nearest grouping to the \$400 filing limit for persons with self-employment income. The institution of the \$400 filing requirement for the self-employed in 1955 probably explains the relative increase in tax return frequencies between 1954 and 1956 (Table 12).

# SOURCES AND COVERAGE

TABLE 12

NUMBER OF PERSONS WITH BUSINESS AND PROFESSIONAL INCOME LESS THAN \$500, LESS THAN \$1,000, AND TOTAL: TAX-RETURN AND CENSUS DATA, 1954, 1956, AND 1960  
(in thousands)

Census Frequency of Families and Individuals with					
	Number on Tax Returns (1)	Farm Self- Employment Income (2)	Nonfarm Self- Employment Income (3)	Total (4)	Col. 1 ÷ Col. 4 (5)
UNDER \$500					
1954	2,657	1,720	1,062	2,782	.96
1956	2,955	1,747	1,198	2,945	1.00
1960	3,287	1,369	1,669	3,038	1.08
UNDER \$1,000					
1954	3,737	2,330	1,517	3,847	.97
1956	4,159	2,308	1,602	3,910	1.06
1960	4,393	2,176	1,798	3,974	1.11
TOTAL					
1954	9,249	5,284	4,018	9,302	.99
1956	10,372	5,469	4,131	9,590	1.08
1960	10,135	6,495	3,431	9,926	1.02

## Source

Col. 1: Statistics of Income. Total frequencies for 1954 and 1956 were reduced by the 1955 (1960 by the 1959) percentage of returns with sole proprietorship or partnership income which showed income from both these sources (column 8, Table 33). For the number of returns with less than \$500 and less than \$1,000, it was assumed that the same duplication ratio applied but that the combined income from both sole proprietorship and partnership on returns with duplication was sufficient to raise the total self-employment income above \$500 and \$1,000 respectively; hence, all returns with duplication were eliminated by reducing the frequency of sole proprietors and partners by twice the duplication ratio.

Cols. 2 and 3: Commerce Department, Current Population Reports, Consumer Income; #20, p. 20; #27, p. 31; and #37, p. 37.

Even if one were to assume that all of the Census frequencies with income less than \$500 did not file and had self-employment income of \$200 each, the total amount thereby accounted for would only be \$.63 billion for 1956 and \$.61 billion for 1960.<sup>16</sup> Recalling that the unexplained

<sup>16</sup> This figure is still much above any other estimates dealing with the same topic. For instance, see Ulric Weil, "A Note on the Derivation of Income Estimates by Source of Income of Persons Making Less than \$500 per Annum, 1944-1948," *Journal of the American Statistical Association*, Vol. 45, p. 440. Weil's estimate of the entrepreneurial component, in the

gap shown in Table 8 was near \$12 billion and \$13 billion, respectively, it must be concluded that the filing requirement level explains little of the discrepancy and that strenuous attempts at greater precision with respect to this item would seem uncalled for.

### *Comparisons With Other Studies*

How do the findings presented above compare with those of other studies? The first thoroughgoing, and by now classic, appraisal of the extent of income coverage on tax returns was that by Selma F. Goldsmith for the years 1944, 1945, and 1946, and later extended to 1951 and 1952.<sup>17</sup> Since the method used in this study follows closely that employed by Mrs. Goldsmith in her two studies, it is not surprising that the results closely agree. Mrs. Goldsmith found that of total unincorporated enterprise income estimated by the NID, the amount covered on tax returns varied between 66 and 72 per cent for the five years mentioned above. For 1951, tax returns accounted for 85 per cent of nonfarm business and professional income and 41 per cent of farm income, according to her estimates.

The most direct evidence that has yet become available regarding income coverage on federal tax returns are the reports on the Internal Revenue Service's Audit Control Program (ACP) for 1948-50. Only results for 1948 and 1949 have been publicly reported, mainly in several papers by Marius Farioletti.<sup>18</sup> The absolute amount of error uncovered was not nearly as large as the discrepancies noted in either Mrs. Goldsmith's or the present study. For 1949, ACP estimates indicate that audit

income group with \$500 and less, varied from \$230 to \$320 million for 1944-48, i.e., an average of 9 per cent of money income for that group. Elsewhere, we have estimated the total income below the filing requirement level for 1955 at roughly \$3.41 billion (C. Harry Kahn, *Personal Deductions in the Federal Income Tax*, Princeton for NBER, 1960, Table A-2). Assuming the Weil figure for the relation of entrepreneurial to total income, we would get about \$.31 billion, that is, \$3.41 billion multiplied by .09. In one important respect our estimate as shown in Table 12 differs from Weil's: the farm component of income below the filing level is over twice as large as the nonfarm, whereas in the Weil estimates the nonfarm exceeds the farm component.

<sup>17</sup> Selma F. Goldsmith, "Appraisal of Basic Data Available for Constructing Income Size Distributions," in *Studies in Income and Wealth*, 13, New York, NBER, 1951, p. 302 and "The Relation of Census Income Distribution Statistics to Other Income Data," in *An Appraisal of the 1950 Census Income Data*, Studies in Income and Wealth, 23, Princeton for NBER, 1958, pp. 79-80. See also Daniel M. Holland and C. Harry Kahn, "Comparison of Personal and Taxable Income," *Federal Tax Policy for Economic Growth and Stability*, Joint Committee on the Economic Report, 1955, pp. 337-338.

<sup>18</sup> Marius Farioletti, "Some Results from the First Year's Audit Control Program of the Bureau of Internal Revenue," *National Tax Journal*, March 1952; and "Some Income Adjustment Results from the 1949 Audit Control Program," in *1950 Census Income Data*.

# SOURCES AND COVERAGE

TABLE 13

ESTIMATED INCREASE IN GROSS RECEIPTS AND IN NET PROFIT LESS LOSS  
AFTER AUDIT OF 1949 TAX RETURNS FOR SOLE PROPRIETORS, BY FARM AND NONFARM INCOME  
(dollars in millions)

	Gross Receipts			Net Profit Less Net Loss		
	Total Disclosable by Audit (1)	Increase over Reported Amount (2)	Col. 2 ÷ Col. 1 (per cent) (3)	Total Disclosable by Audit (4)	Increase over Reported Amount (5)	Col. 5 ÷ Col. 4 (per cent) (6)
Total income	107,417	1,916	1.8	16,293	2,715	16.7
Farm	18,192	541	3.0	5,010	939	18.7
Nonfarm	89,225	1,375	1.5	11,283	1,776	15.7

Source: Marius Farioletti, "Some Income Adjustment Results from the 1949 Audit Control Program," in An Appraisal of the 1950 Census Income Data, Studies in Income and Wealth 23, Princeton for NBER, 1958, Table 5.

of all sole proprietorship returns for that year would have produced an increase in net profit (less net loss) of \$2.7 billion (Table 13).<sup>19</sup> Even with generous allowance for amounts not reported because the recipients, though legally required to file, were nontaxable after exemptions and nonbusiness taxes, the estimated change disclosed by audit was well below the discrepancy shown in Table 8. But, as Farioletti has repeatedly noted, the ACP estimates were not intended to disclose all errors, "but only the errors that experienced Internal Revenue examining officers would find if all of the returns of the taxpayers were audited with about the same experience and time factors." It was decided beforehand that "it would not be practicable to establish standards of audit needed to estimate all errors that taxpayers make."<sup>20</sup> Even in the absence of such a decision it would be difficult to find all taxpayer errors by audit methods.

It is, however, of interest to note some of the relative magnitudes brought out in the ACP. Thus, although returns with profit or loss from

<sup>19</sup> No comparable estimate is given for partnership income. The only evidence for partnership income is for returns reporting less than \$10,000 adjusted gross income on Forms 1040 for which a change in tax liability is indicated, with the largest portion attributable to error in AGI. The AGI change on returns on which partnership income was the major income item in error was \$329 million. (See Farioletti in *1950 Census Income Data*, p. 255.) Thus, total estimated audit change for partnership income may be in the neighborhood of \$400 million, which would bring the audit change for all unincorporated enterprise income to \$3.1 billion.

<sup>20</sup> *Ibid.*, pp. 242-243.

sole proprietorship have accounted for less than one-tenth of total adjusted gross income reported, they accounted for 54 per cent of the total adjusted gross income change for returns examined in the 1949 ACP. In the 1948 ACP, underreporting errors were found on more than one out of every three returns with income or loss from sole proprietorship. The significance of this ratio is best stated in Farioletti's words: "Based on results of the Bureau's Audit Control Program, it is estimated that the 7 million 1948 income tax returns filed by individuals with business and professional incomes are more frequently in error, have larger amounts of tax change, and produce more dollars of tax change per man-year of examination effort expended than is the case regarding the 45 million returns without business incomes."<sup>21</sup>

The most significant 1949 ACP findings for sole proprietors are assembled in Table 13. The relative size of the increase in net profit (less net loss) after audit was somewhat greater for farm than for non-farm proprietors, 18.7 as compared to 15.7 per cent, but the difference was much less than might be expected from the relative gap between estimated totals and amounts reported, as shown in Table 8 above. This suggests the possibility that the NID estimates of net income from non-farm business, which are largely based on IRS data,<sup>22</sup> may not have been adjusted upward sufficiently. If so, much of the difference in the proportion of farm and nonfarm business and professional income accounted for on tax returns may be apparent rather than real.<sup>23</sup>

The only other study which approached the problem of income coverage on tax returns through the "audit" method is that recently reported on by Harold M. Groves.<sup>24</sup> While of great interest in many respects, its relevance to the subject of this inquiry is limited by the fact that it deals with the coverage of farm and rental income under the Wisconsin state income tax. Wisconsin probably cannot be considered representative of the nation since its tax returns have long been open to public inspection, a circumstance which made the Groves study possible and which undoubtedly has considerable effect on income tax administration. The Groves group found that a reasonable estimate of farm net

<sup>21</sup> Farioletti, in *National Tax Journal*, March 1952, p. 77.

<sup>22</sup> See footnote 5, above.

<sup>23</sup> It will be recalled that the estimates of farm operators' income, with which the tax return figures are compared, were derived independently, whereas the nonfarm business estimates lean on IRS and audit data which cannot be presumed to disclose all of the underreporting likely to occur.

<sup>24</sup> Harold M. Groves, "Empirical Studies of Income Tax Compliance," *National Tax Journal*, December 1958, especially pp. 297-301.

income coverage on Wisconsin tax returns is in the range of 60 to 75 per cent, which exceeds even our variant 2 estimate of 52 per cent for 1957.

Another recent study, which deals only with farm operators' income, is that by Stocker and Ellickson<sup>25</sup> of the U.S. Department of Agriculture. Stocker and Ellickson restricted themselves almost entirely to a thorough-going analysis of the coverage of gross farm receipts on federal tax returns. As the authors note in their concluding remarks, it is of course the coverage of net income rather than gross income that matters in the analysis of problems relating to the income tax. Equity requires that the measure used as the tax base is adequately reported. Stocker and Ellickson find that, for 1955, all but \$4.2 billion of gross receipts, or 86 per cent of the total, can be accounted for after some skillful adjustments. They draw from this the sanguine conclusion "that one of the last large economic groups to remain essentially untouched by federal income taxation has apparently been brought under the tax."<sup>26</sup> While acknowledging the possibility that the overstatement of expenses as well as the understatement of gross receipts can cause errors in reported net income, they suggest (in line with a finding by Groves)<sup>27</sup> that farmers may well understate rather than overstate their expenses. From this they suggest that farm net income may be as fully reported as farm gross income.

Actually, the gap for gross farm receipts reported by Stocker and Ellickson is not irreconcilable with our own seemingly much larger gap (shown in Table 8 above). The divergence in the two findings is only superficial. For 1955 we estimated farm operators' net income at \$8.9 billion. Stocker and Ellickson report \$4.2 billion of gross farm income as unaccounted for. To be consistent with our estimates (see Appendix Table B-3) their figure was reduced to \$3.3 billion.<sup>28</sup> But even \$3.3 billion of missing gross receipts, when compared with \$8.9 billion net income, can mean an understatement of 37 per cent in the latter. Unless accompanied by understatement of expenses, a relatively small omission of gross receipts has an important effect on net income. According to the ACP findings (summarized in Table 13), underreporting of gross receipts was not offset by underreporting of business expense. On the contrary, it was reinforced by overreporting errors, as suggested by the fact that

<sup>25</sup> Frederick D. Stocker and John C. Ellickson, "How Fully Do Farmers Report Their Incomes?" *National Tax Journal*, June 1959.

<sup>26</sup> *Ibid.*, p. 124.

<sup>27</sup> *National Tax Journal*, December 1958, p. 300.

<sup>28</sup> Stocker and Ellickson obtain their gap of \$4.2 billion by inclusion of intrastate livestock sales of \$0.9 billion in gross receipts (in *National Tax Journal*, June 1959, p. 122). For lack of data our estimates did not include this item.

## SOURCES AND COVERAGE

the audit increase in net income was 1.7 times as large as that for gross receipts.<sup>29</sup> If we apply this ratio to the missing gross receipts for 1955, the unexplained amount would be raised from \$3.3 billion to \$5.7, as follows:

1. Farm entrepreneurial net income estimate	8.9
2. Minus: gross receipts not accounted for	3.3
3. Minus: overstatement of business expenses (line 2 x .74)	2.4
4. Equals:	3.2
5. Our estimate of farm net income accounted for (Table 8)	3.0-3.1

Needless to say, the above calculations are hypothetical. They are intended to show that the seeming disparity between either Mrs. Goldsmith's or our estimates on the one hand, and those presented by Stocker and Ellickson on the other, can be reconciled without much difficulty.

In conclusion, it should be stressed once more that while the amount of farm operators' income not accounted for is large, the evidence that a relatively smaller amount of business and professional income is unaccounted for rests on shaky ground. Certainly the ACP data presented in Table 13 furnished scant support for such a conclusion.

### *Coverage by Size of Income Reported*

Data on tax changes resulting from tax return audits have been tabulated by size and type of income reported on returns with error. This was done as part of the Audit Control Program for 1948.<sup>30</sup> Although the income groups chosen are extremely broad and the source of tax error is not entirely clear,<sup>31</sup> certain patterns are nevertheless revealed.

Table 14 suggests that audit would disclose nearly one-half of the returns with business income to be in error. This compares with 23 per

<sup>29</sup> Expense overreporting may be an important factor. Many farmers may fail to prorate property taxes and mortgage interest between personal and business expense (a possibility taken into account in our variant 2 estimates). Others may deduct as an expense the value of work performed by the farmer's wife or dependent children although no explicit money wage payments may take place.

<sup>30</sup> The figures presented in this section are based on U.S. Treasury Department, *The Audit Control Program, A Summary of Preliminary Results*, 1951, and some detailed breakdowns supplied by the Internal Revenue Service.

<sup>31</sup> The 1948 ACP classified its data by collectors' and agents' returns. Collectors' returns are forms 1040 A and forms 1040 with AGI under \$7,000. Agents' returns are forms 1040 with AGI over \$7,000 or gross receipts from business or professional over \$25,000. They are classified into groups with under \$25,000, \$25,000 to \$100,000, and over \$100,000 AGI. Because a sizable number of returns had gross receipts over \$25,000 but AGI less than \$7,000, no clean break between the under \$7,000 and \$7,000 to \$25,000 AGI groups was possible.

It should also be noted that the tax changes shown in the tables, though occurring on returns with unincorporated enterprise income, are not necessarily always errors in entrepreneurial income. The latter may be responsible for only part of the tax change on a return.



# SOURCES AND COVERAGE

TABLE 14

NUMBER OF SOLE PROPRIETOR RETURNS WITH TAX ERROR, BY INCOME GROUPS, 1948  
(in thousands)

AGI (thousand dollars)	Total Number Filed (1)	Number with Error		Percentage of Total with Error		Number with Error in Business Income (6)
		Under- stating Tax (2)	Over- stating Tax (3)	Under- stating Tax (2)÷(1) (4)	Over- stating Tax (3)÷(1) (5)	
Under 7	5,970	2,358	207	39.5	3.5	2,147
7 - 25 <sup>a</sup>	1,207	804	84	66.6	7.0	777
25 - 100	78	55	7	70.5	9.0	48
100 and over	4.4	3.2	0.5	72.7	11.4	2.2
Total	7,260	3,222	298	44.4	4.1	2,974

Source: See Appendix D.

<sup>a</sup>Roughly 45 per cent of returns in this group have AGI of less than \$7,000 but gross receipts greater than \$25,000.

cent for returns without business income.<sup>32</sup> But not all the errors were due to underreporting. Of the estimated 3.5 million returns of sole proprietors, which audit would disclose to be in error, 0.3 million, or 8.5 per cent, had errors resulting in a decrease in tax liability. For the other 91.5 per cent, disclosure of error would have resulted in an increase in tax liability. Most of these errors may be presumed to consist of underreporting of income, inasmuch as 3 million of the 3.5 million returns of sole proprietors had errors in their business income schedule (Table 14, column 6).

The relative frequency of both types of error tends to rise as income rises. Returns of sole proprietors for which audit resulted in a tax increase were 40 per cent of those with less than \$7,000 reported income and 73 per cent of those with over \$100,000. Returns for which audit led to a tax decrease, though much less frequent, rose even more steeply—from 3.5 to 11.4 per cent over the same income range.

Of the tax change disclosable by audit of sole proprietors' returns, \$688 million constituted tax increase and \$30 million tax decrease (Table 15). These tax changes are attributable to returns reporting tax

<sup>32</sup>Treasury Department, *Audit Control Program*, p. 22.

TABLE 15  
TAX CHANGE DISCLOSABLE BY AUDIT ON RETURNS OF SOLE PROPRIETORS,  
BY INCOME GROUPS, 1948  
(dollars in millions)

AGI (thousand dollars)	Tax Liability Reported on		Change Resulting in		Tax Change as Percentage of Column 2			Tax Change <sup>a</sup> on Returns with Error in Business Income (7)
	All Returns of Sole Proprietors (1)	Returns of Sole Proprietors with Error (2)	Tax Increase (3)	Tax Decrease (4)	Col. 3 ÷ Col. 2 (5)	Col. 4 ÷ Col. 2 (6)		
Under 7	742	431	308	10	71.5	8.3	285	
7 - 25 <sup>b</sup>	1,170	921	288	12	31.3	1.3	279	
25 - 100	870	700	75	6	10.7	.9	66	
100 and over	590	530	17	2	3.2	.4	15	
Total	3,372	2,582	688	30	26.6	1.2	644	

Source: See Appendix D.

<sup>a</sup> Sum of tax increase and tax decrease without regard to sign.

<sup>b</sup> Roughly 45 per cent of returns in this group have AGI of less than \$7,000 but gross receipts greater than \$25,000.

TABLE 16  
ESTIMATED INCREASE IN DISPOSABLE AGI DUE TO UNDERREPORTING ON RETURNS OF  
SOLE PROPRIETORS WITH TAX ERROR, BY INCOME GROUPS, 1948

AGI (thousand dollars)	Tax Liability on Returns of Sole Proprietors with Error (1)	Estimated AGI for Returns with Error					Col. 2 ÷ Col. 6 (per cent) (7)
		Net Tax Increase Disclosable by Audit <sup>a</sup> (2)	Amount Reported (3)	Additional AGI Disclosed by Audit (4)	Total (Col. 3 + Col. 4) (5)	Disposable AGI (Col. 5 Minus Cols. 1 and 2) (6)	
Under 7	431	298	5,130	1,795	6,925	6,196	4.8
7 - 25 <sup>b</sup>	921	276	7,997	1,358	9,356	8,159	3.4
25 - 100	700	69	2,435	152	2,587	1,818	3.8
100 and over	530	15	800	20	821	276	5.4
Total	2,582	658	16,363	3,325	19,689	16,449	4.0

Source: See Appendix D.

<sup>a</sup> Tax increases minus tax decreases disclosable by audit; col. 3 minus col. 4, Table 15.

<sup>b</sup> Roughly 45 per cent of returns in this group have AGI of less than \$7,000 but gross receipts greater than \$25,000.

liability of \$2,582 million. Thus, the tax increase disclosable by audit constitutes 27 per cent of the voluntarily reported amount, the tax decrease 1 per cent. But this average again hardly describes the relationship of tax increase to amount reported for different income groups. It was found that tax liability is raised by 72 per cent through audit of returns with reported AGI under \$7,000; by 11 per cent for returns reporting \$25,000 to \$100,000; and by 3 per cent for returns with \$100,000 and over. The size of tax decreases, when viewed relative to reported amount of tax, also declined over this income range—from 2.3 to 0.4 per cent. Thus, though the frequency of tax error rises sharply over the income range, as we observed in Table 14, the relative amount of tax error declines. Understatement of tax is large in relation to tax liability at the lower end of the income scale and comparatively small at the top.

Reductions in tax liability, whether brought about by reductions in rates or by the unilateral action of some taxpayers, need not be viewed solely against the background of tax liabilities themselves. An alternative, frequently chosen,<sup>33</sup> is to view the change against disposable income. In Table 16 the net tax increase disclosable by audit (i.e., the amount of net understatement of tax liability) is viewed as an increase in disposable income. To stay within the statistical framework laid down by the income tax the net tax understatement of each income group was compared with its disposable AGI. The latter was estimated by subtracting from the total AGI of each group its reported tax liability plus the net understatement of tax liability. Total AGI is reported AGI plus estimated net understatement of AGI.<sup>34</sup>

When the net tax understatement disclosed by audit is compared with estimated disposable AGI, average disposable income is enhanced by 4.0 per cent, and the variation in this percentage among the four income groups is not systematic by size of income. The group with less than \$7,000 increased its disposable income by 4.8 per cent; taxpayers reporting \$25,000 to \$100,000 raised theirs by 3.8 per cent; and those reporting \$100,000 and over added 5.4 per cent.

Evidently, sole proprietors' net understatement of tax liability does not vary greatly in relation to disposable income, although it declines sharply

<sup>33</sup> See, for instance, R. A. Musgrave and Tun Thin, "Income Tax Progression, 1929-48," *Journal of Political Economy*, 1948, pp. 498-514.

<sup>34</sup> Net understatement of AGI was estimated by dividing the net understatement of tax of each group by its average marginal rate of tax, thus obtaining an income equivalent for the Treasury Department's tax change figure. The reported amount of AGI is given for all returns with sole proprietor income in *Statistics of Income* for 1948. The amount for returns with error was obtained by prorating.

#### SOURCES AND COVERAGE

in relation to tax liability itself. This, of course, is in the nature of the complementary relationship between tax liability and disposable income: under a progressive tax, tax liability rises as a percentage of disposable income as income rises. Hence any variable which maintains a stable relation to disposable income must decline in relation to tax liability as income rises.